

**ABSTRACT OF THE INVENTION**

The present invention provides for a composition that is comprised of a polypeptide that comprises the catalytic domain of a SUMO protease and its substrate. The invention also  
5 discusses a method of trapping a protease with its substrate in a deacylation intermediate. A method of identifying substrates of proteases by rational drug design is further discussed and described. Sequences, vectors, and host cells of mutant Ulp1 are also provided.

Ulp1